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ABSTRACT

An instrument was developed to identify schools that might be more prone to the occurrence of violence. The first draft of the instrument was developed by a research analyst, the project evaluator, the school resource officer at a junior high school, and school officials. This draft went through several pilot administrations, revisions, and factor analyses. The final version, which consisted of 67 items, was administered to all 745 students in grades 6 through 8 of the junior high school. Factor analysis revealed that the scale had five factors. The overall measure of internal consistency and reliability yielded a reliability correlation coefficient of 0.85. The mean scores led school officials to conclude that bullying behavior was not a serious problem in the school. The instrument did reflect that bullying occurs, but the score indicated that it occurs only once in a while. The instrument provides useful data to help school officials develop a plan to reduce bullying, and identifies behaviors and school locations that could be potential problems. (SLD)

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A SCALE

A SCALE FOR MEASURING THE LIKELIHOOD THAT VIOLENCE WILL OCCUR

ED 438 331

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A SCALE FOR MEASURING THE LIKELIHOOD THAT VIOLENCE WILL OCCUR

Introduction

Seventy-five percent of adolescents have been bullied while attending school (Peterson, 1999). Newspaper articles with similar statistics dealing with bullying behavior are becoming more commonplace. Beane (1999), in a book on the topic, stated that one in seven children is subjected to bullying behavior and that it affects about five million elementary and junior high students. Bullying behavior played some role in all the school shootings during the past two years. Not only do victims of bullying behavior bear emotional scars that can lead to violence, the victim of bullying behavior is frequently disliked by peers (Peterson, 1999). This double whammy, so to speak, of being picked on by a bully and ostracized by peers can have devastating consequences.

The death of a student in Cherokee County due to bullying attracted national attention to the issue of bullying in November of 1998. Recognizing the severity of the problem, state lawmakers in Georgia passed a law to deal with bullying behavior. The law went into effect on July 1, 1999 and bullying was defined as follows:

- Any willful attempt to inflict injury on another person, when accompanied by an apparent present ability to do so; or

- Any intentional display of force such as would give the victim reason to fear or expect immediate bodily harm.

As a result of the law, all school district officials are to adopt policies that deal with weapons and bullying behavior. Further, three time offenders are to be sent to alternative schools.

The development of bullying behavior starts in elementary school, with the highest frequency of bullying behavior occurring in middle school. Bullying behavior somewhat decreases in high school, yet is sometimes given more attention due to the physical size of students and nature of some incidences to contain sexual harassment (Vail, 1999). Research indicates that a "school-wide systemic approach to preventing and responding to bullying behavior is required to more fully assure that students are protected against acts of victimization by their peers" (Clarke & Kiselica, 1997). The development of a scale or instrument to identify the extent of bullying behavior in the school and to further identify who is being bullied might help reduce violence in the school setting. School officials would be able to take pro-active measures to reduce bullying before students reacted violently to such behavior.

Statement of the problem/purpose

School officials all across the country are implementing plans and policies to combat increasing events of violence that take place in school settings. In order to reduce the amount of violence, efforts must focus on violence prevention instead of intervention. It would help if there were a method for diagnosing where there might be a tendency for violence to occur. Consequently, the purpose of this research was to develop an instrument that might identify those schools that are more prone to the occurrence of violence.

Procedures

School officials from a junior high school in the South and their local police department wrote a grant and obtained funding to study bullying behavior at the school. The grant was for $123,000 and was funded by the federal government through a school based partnership grant. A full-time research analyst and a project evaluator (part-time) from the State University of West Georgia were hired. With the assistance of school officials, the research analyst, the project evaluator, and the school resource officer developed an instrument to generate student data on bullying behavior at the junior high school. The first draft of the instrument went through several pilot administrations, revisions, and factor analyses. The final version consisted of 67 items and was administered to all students (N = 745) in grades 6 through 8.

Scoring/analysis

The first eight items on the instrument measure a category of data that could be relevant for developing pro-active measures to curtail bullying behavior, e.g., grade level, gender, parental status, etc. The remaining 59 items measure student perceptions of behaviors thought to be relevant for bullying. Students respond to each of the items according to a five point Likert scale ranging from "never" to "always." Never is scored as a 1.0 and always is scored as a 5.0. Twenty -four of the items are negative behaviors, e.g., "I am picked on because of the way I look.". Students who respond with a "never" to a negative behavior receive a positive score of 1.0. An "always" response would receive a negative score of 5.0, i.e., the higher the score the more negative the response. Thirty-five of the items are stated as positive behaviors, e.g., "students show respect for each other." An always or positive response to this type of behavior is reverse scores, e.g., an always response is scored as a 1.0 and a never response is scored as 5.0.

A factor analysis revealed that the scale had five factors as follows: (see Appendix A for the behaviors associated with each factor)

- Factor one--where bullying occurs; (eight behaviors)
- Factor two--the type and reason for bullying; (nine behaviors)
- Factor three--how students are treated; (seven behaviors)
- Factor four--the way students report bullying behavior; (nine behaviors) and
- Factor five--feelings of self-efficacy (eighteen behaviors).

There were eight items that did not load on any factor. For example, three items dealt with whether the bully was from the same, lower or upper grade–see Appendix A for the other items. These items could be removed from the instrument unless that information was desired.

Results

A Cronbach alpha was used to determine the reliability of the instrument. Factors one through five had correlation coefficients as follows: factor one = +.82, factor two = +.82, factor three = +.75, factor 4 = +.72, and factor five = +.68. The overall measure of internal consistency and reliability yielded a correlation coefficient of +.85.

Mean scores for each of the factors and the relationship of the factors to each other were also determined. Mean scores for each factor ranged from a low of 1.55 for factor two (type and reason for bullying) to a high of 3.09 for factor one (where bullying occurs). A score of 3.0 indicates that sometimes this behavior happened, while a score of 1.55 indicates that the behavior occurred a little. Correlational data ranged from a high of +.40** between factors one and two and a low of .09 between factors two and four. Nine of the ten comparisons were significant at the .01 level.

The correlation between factor one "where bullying occurs" and factor two "the type and reason for bullying" at +.40 was the strongest (see Table 1). Apparently, those who have a higher frequency of being picked on, are also more likely to see others being picked on. The correlation between factor one and three "the way students are treated" had a correlation of +.27. This is a very weak although statistically significant correlation. It would appear that those students who see more evidence of bullying behavior are less likely to see caring and respectful behavior. The correlation between factor and and four "how bullying behavior is reported" is even weaker with a +.23 correlation. This weak correlation is caused by data received from male students who report that they are less likely to report bullying behavior even though they might see it or be victims of it. The correlation between factor one and factor five "feelings of self-efficacy" (.11) is very low. This could be caused by feelings of anxiety that are generated by being a witness to bullying behavior and being unable to do anything to stop it.

Table 1.
The correlations of the scale factors

	Factor one	Factor two	Factor three	Factor four	Factor five

Factor one	1.00				
Factor two	.404**	1.00			
Factor three	.266**	.237**	1.00		
Factor four	.230**	.088*	.402	1.00	
Factor five	.116**	.340**	.376**	.343	1.00

** P < .003, * P < .02, N = 673,

The correlation between factor two and factor three was +.237. This low correlation was not expected. For example a student who has a high score (negative) on type of bullying would be the object of bullying behavior. This same student should have a high negative score on the fair and caring treatment of students. We expected the correlation to be more positive than indicated by our study. Nevertheless, while it is not very strong, it is positive and significant. The correlation between factor two and factor four was +`.088. This is very disconcerting, but what it seems to say is that a number of students who are bullied, do not report it. Factor two measures whether bullying is reported. If a student is bullied and it is reported, the student would have a high score on factor two and a low score on factor four. This would have caused a negative correlation. Since the correlation is almost non-existent, it means that a number of students who are bullied do not report it. The correlation between factor two and factor five is +.34. It would have been expected that students who are bullied would have had a low sense of self-efficacy, and this tends to be the case. Students with low scores on bullying (positive) tended to have lower positive scores on self-efficacy.

The correlation between factor three and factor four was +.402. This indicates that students who report seeing fair and caring behaviors also tend to report bullying behavior. Similar results were found for factors three and five. Students who report seeing fair and caring behaviors tend to have higher levels of self-efficacy as indicated by the correlation of +.376 between the two factors. Similarly, students with higher levels of self-efficacy are more likely to report bullying behavior, as indicated by the correlation of +.343 between factors four and five.

Conclusions

Based on the mean scores, school officials concluded that bullying behavior was not a serious problem. The instrument does reflect that bullying occurs, but a score of 1.5 on the scale that measures the frequency of bullying indicates that it occurs only once in awhile. The instrument provides useful data to assist school officials in developing a plan to reduce bullying behaviors. It identifies those behaviors and school locations that could be potential problems. For

example, if the score on the behavior "students are picked on before class" has the worst score, school officials will be able to target their plan to reduce bullying in hallways and bathrooms. The instrument also identifies those students who are often the recipients of bullying behavior. This allows teachers and counselors to be more watchful and protective when they are around these students.

School officials are cautioned not to rely on survey data alone in dealing with bullying behavior. Interviews with victims, bullies, and bystanders are extremely helpful in assessing the extent to which bullying occurs in a school, accompanied by a review of related discipline referrals. Beane (1999) lists some early warning signs that school violence could occur. They are the following:

- there is a sudden change in academic performance accompanied by poor attendance, lack of interest and difficulty concentrating;
- the student is lonely and withdrawn with poor interpersonal skills and a poor sense of humor and frequently does not stand up for him-herself;
- the student is frequently ill or has a physical disability or is physically much different due to weight, size, or appearance; and
- the student has sudden changes in mood such as being irritable, crying easily, depressed, anxious, or overly sensitive.

If school officials use a combination of survey data and are sensitized to some of the above early warning signs the likelihood of violence occurring can be reduced.

Educational significance

The Sunday issue of The Atlanta Journal and Constitution featured an article (Joyner, 1999) on bullying behavior. A quote from that article was as follows: "Bullying–one of the most insidious and fastest-growing forms of workplace violence–is on the rise worldwide..." (p. 1—Section R-1) The significance of this study is that it allows us to become more informed about bullying where it starts "in the schools." Perhaps as we become better informed about the different types of bullying, where and when it happens, and how often, we will be able to reduce such behaviors, thereby reducing incidents of violence in the schools and eventually in the workplace.

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